

**GOAL #1: Clean & Safe Water****Program #4610: WQ Assessment - GW/SW**

**Objective #3:** Protect and improve water quality on a watershed basis – number of Arizona’s watersheds where: water quality standards are met in at least 80 percent of the assessed water segments; all assessed water segments maintain their quality and at least 20 percent of assessed water segments show improvement above conditions as of 2002.

<b>TASK/ GRANT</b>	<b>OUTPUT DESCRIPTION</b>	<b>EVALUATION, DATE OR QUANTITY T=TARGET A=ACTUAL</b>	<b>RESPONSIBLE SECTION/ STAFF</b>
<b>1.3.16</b>	<b>TASK: TMDL Analyses</b>  Oversee Total Maximum Daily load (TMDL) efforts and conduct TMDLs and related analyses.  <b>DELIVERABLES:</b>		
NPS Impl V/VI AzTMDL II	1) TMDL projects in modeling phase a) Lakeside Lake (pH, DO, nutrients, ammonia) i) Draft TMDL report ii) Public notice/response period iii) Submit TMDL report to EPA for approval	T =  i) 6/04 ii) 9/04 iii) 9/04	Hydrology
	b) Turkey Creek – unnamed tributary to Poland Creek (Cd, Cu, Pb, Zn) i) Draft TMDL report ii) Public notice/response period iii) Submit TMDL report to EPA for approval	T = i) 6/04 ii) 11/04 iii) 12/04	
	c) French Gulch – headwaters to Hassayampa (Cd, Cu, Zn) i) Draft TMDL report ii) Public notice/response period iii) Submit TMDL report to EPA for approval	T = i) 6/04 ii) 11/04 iii) 12/04	
	d) Pinto Creek - headwaters to Ripper Spring (Cu) and Pinto Creek - Ripper Spring to Roosevelt Lake (Cu) i) Stakeholder participation ii) Calculate TMDL iii) Draft TMDL report iv) Public notice response period v) Submit TMDL report to EPA for approval.	(1) ongoing (2) 5/04 (3) 6/04 (4) 11/04 (5) 12/04	

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<b>1.3.16</b>	<b>TASK: TMDL Analyses (Cont'd)</b>  <b>DELIVERABLES:</b>		
	e) Mule Gulch - headwaters to above Lavender Pit (Cu, Cd, pH, Zn); and Mule Gulch - above Lavender Pit to WWTP Bisbee (Cu, Cd, pH, Zn); and Mule Gulch - WWTP Bisbee to Highway 80 bridge (Cu, Cd, pH, Zn) i) Continue storm monitoring ii) Collect sufficient natural background samples to support development of a site specific standard. iii) Calculate TMDL iv) Draft TMDL report v) Public notice/response period vi) Submit TMDL report to EPA for approval.	T =  i) 10/04 ii) 10/04  iii) 11/04 iv) 12/04 v) 2/05 vi) 6/05	
	2) NPDES 104(b)3 Grants a) FY03/04 – Bill Williams Watershed (Alamo Lake) TMDL (Hg) * i) Determine sufficiency of data to calculate TMDL ii) Perform water quality sampling iii) Calculate TMDL iv) Draft TMDL report v) Public notice/response period vi) Submit TMDL report to EPA for approval b) FY04/05 – Lake Mary Regional TMDLs (Hg in 2 lakes) ** i) Draft TMDL SAP ii) Receive report of findings from Northern Arizona University study. iii) Surface water and sediment sampling.	T =  a) i) 7/04  ii) 10/04 iii) 12/04 iv) 2/05 v) 5/05 vi) 6/05  b) i) 5/04 ii) 8/04  iii) thru FY 05	Hydrology

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	3) TMDL projects in monitoring phase a) Queen Creek – headwaters to Superior Mine WWTP (Cu); and Queen Creek – Superior Mine WWTP to Potts Canyon (Cu) i) Perform recon/historic data review ii) Draft TMDL SAP iii) Perform water quality sampling	T =  i) 9/04 ii) 10/04 iii) 11/04 thru FY 05	Hydrology
	b) Slide Rock State Park pathogen TMDL phase II (E.coli) i) Stakeholder coordination ii) Perform water quality monitoring	T =  (1) in progress (2) 7/04 thru FY 05	
	c) Lyman Lake (Hg) i) Continue recon/historic data review ii) Draft TMDL SAP	T = i) 8/04 ii) 9/04	
	d) Burro Creek Watershed Mercury TMDL projects: i) Boulder Creek – unnamed tributary to Wilder Creek (Hg); and Boulder Creek – Wilder Creek to Copper Creek (Hg); and Burro Creek – Boulder Creek to Black Canyon (Hg); and Butte Creek – headwaters to Boulder Creek (1) Continue recon/historic data review (2) Draft TMDL SAP (3) Perform water quality sampling	T =  i) 8/04 ii) 10/04 iii) 11/04 thru FY 05	

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	4) Pre-TMDL activities for: <ul style="list-style-type: none"><li>• LCR – Silver Creek to Carr Wash (E.coli)</li><li>• San Pedro - Mexico border to Charleston (Cu)</li><li>• San Pedro - Babomcomari Creek to Dragoon Wash (E.coli)</li><li>• San Pedro – Aravaipa Creek to Gila River (E.coli, Se)</li><li>• Cave Creek – headwaters to South Fork Cave Creek (Se)</li><li>• Cienega Creek – headwaters to Gardner Canyon (E.coli)</li></ul> i) Sample via ambient monitoring program ii) Perform recon/historic data review iii) Draft TMDL SAP iv) Perform water quality sampling	T =   i) 4 Quarters ii) 10/04 iii) 1/05 iv) 1/05 thru FY 05	Hydrology
	5) Long-term TMDL projects <ul style="list-style-type: none"><li>a) Little Colorado River – Porter Tank to McDonalds Wash (Cu, Ag, SSC)<ul style="list-style-type: none"><li>i) Update TMDL SAP to include SSC</li><li>ii) Perform water quality sampling</li></ul></li><li>b) Verde River – headwaters to Horseshoe Reservoir (N, P)<ul style="list-style-type: none"><li>i) Receive USGS GW/SW report</li></ul></li><li>c) Gila pesticide investigation - *numerous segments<ul style="list-style-type: none"><li>i) Perform workplan activities</li></ul></li></ul>	T :=  a) i) 12/04 ii) 1/05 thru FY 05  b) i) anticipated in 2005  c) i) thru FY 05	Hydrology

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PPG	6) Targeted monitoring activities a) Beaver Creek – Dry Beaver to Verde River (Turb/SSC) i) Perform recon/historic data review ii) Prepare Planning List SAP iii) Install monitoring equipment iv) Perform targeted monitoring b) Wet Beaver – Long Canyon to Rarick (Turb/SSC) i) Perform recon/historic data review ii) Prepare Planning List SAP iii) Install monitoring equipment iv) Perform targeted monitoring c) Nutrioso Creek TMDL effectiveness monitoring (Turb/SSC) i) Continue effectiveness monitoring	T =  a) i) 7/04 ii) 7/04 iii) 7/04 iv) thru FY 05  b) i) 7/04 ii) 7/04 iii) 7/04 iv) thru FY 05  c) i) thru FY 05	Hydrology
PPG	7) Hold teleconferences with EPA Region IX TMDL staff.	T = Monthly	Hydrology
	8) Continue inter-agency and inter-state TMDL project and targeted monitoring coordination. Coordinate activities with surrounding states, National Forest Service, and Bureau of Land Management to identify where scheduled stream remediation activities can be tied to impaired waterbodies and/or Planning List (Part 3) waterbodies.	T = Ongoing	Hydrology

<b>FTE FUNDING SOURCE</b>	<b>MONTHS</b>	<b>AMOUNT</b>
ST 319(h) NPS Impl. V	4.50	15,037
ST 319(h) NPS Impl. VI	18.00	63,055
PPG	45.50	134,367
WQARF 319(h) NPS Impl. VI	4.00	11,633
319(h) NPS Impl. V	15.50	48,047
319(h) NPS Impl. VI	<u>43.50</u>	<u>141,583</u>
* Contract: Mercury TMDL grant	131.00	413,722
** Pending L.Mary TMDL preproposal approval		
Total		